

L12 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1980:569113 CAPLUS

DOCUMENT NUMBER: 93:169113

TITLE: Light stabilizers for organic polymers

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55049355	A2	19800409	JP 1979-124688	19790927
JP 01000948	B4	19890110		
US 4289686	A	19810915	US 1979-76106	19790917
EP 10516	A1	19800430	EP 1979-810102	19790921
EP 10516	B1	19820714		
R: BE, CH, DE, FR, GB, IT, NL				
US 4481315	A	19841106	US 1983-470742	19830228
PRIORITY APPLN. INFO.:			CH 1978-10088	19780927
			US 1979-76106	19790917
			US 1981-266873	19810526

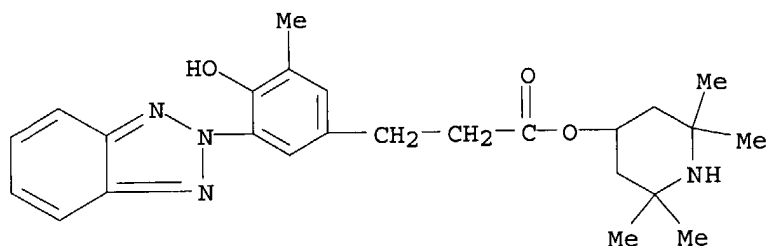
AB Light stabilizers were prepared from benzotriazole or 2-hydroxybenzophenone derivs. and polyalkylated piperidine derivs. Thus, 2-(2-hydroxy-5- β -methoxycarbonyl-ethyl-3-methylphenyl)benzotriazole [74734-21-7] 46.7, 4-hydroxy-2,2,6,6-tetramethylpiperidine [2403-88-5] 23.6, and NaOMe 9 g were heated in 300 mL xylene under N at 130-5° for 20 h, with removal of MeOH, to prepare 2-[2-hydroxy-3-methyl-5-[β -(2,2,6,6-tetramethyl-4-piperidinyloxycarbonyl)ethyl]phenyl]benzotriazole [74734-22-8].

IT 74734-22-8

RL: PEP (Physical, engineering or chemical process); PROC (Process)
(light stabilizers, for polymers)

RN 74734-22-8 CAPLUS

CN Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-4-hydroxy-5-methyl-,
2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



L12 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1991:63535 CAPLUS
 DOCUMENT NUMBER: 114:63535
 TITLE: Light-stabilizers for polymers containing hindered
 amine and light-absorbing groups
 INVENTOR(S): Ravichandran, Ramanathan; Galbo, James P.
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 26 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 389427	A2	19900926	EP 1990-810195	19900313
EP 389427	A3	19911127		
EP 389427	B1	19940427		
R: DE, FR, GB, IT				
US 5021478	A	19910604	US 1990-479880	19900214
CA 2012503	AA	19900921	CA 1990-2012503	19900319
CA 2012503	C	20000118		
JP 02300168	A2	19901212	JP 1990-73181	19900322
JP 2860589	B2	19990224		

PRIORITY APPLN. INFO.: US 1989-326848 A 19890321

OTHER SOURCE(S): MARPAT 114:63535

AB The title compds. are less basic than other stabilizers and so do not related curing. Refluxing Me 3-benzotriazol-2-yl-5-tert-butyl-4-hydroxyhydrocinnamate 30.0 and 4-hydroxy-1-methoxy-2,2,6,6-tetramethylpiperidine 19.1 g in xylene with distillation of H₂O, cooling to 100°, adding LiNH₂, and refluxing 16 h with distillation of MeOH gave 24.5 g 1-methoxy-2,2,6,6-tetramethylpiperidin-4-yl 3-benzotriazol-2-yl-5-tert-butyl-4-hydroxyhydrocinnamate.

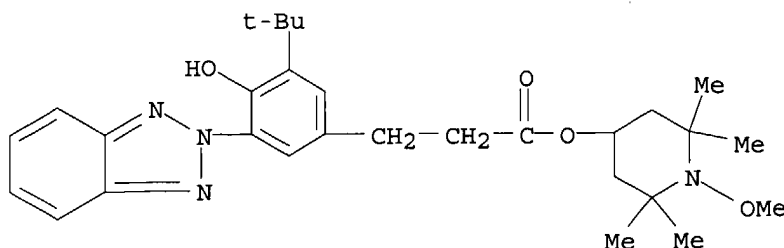
IT 131806-85-4P 131806-86-5P 131806-87-6P
 131806-88-7P

RL: PREP (Preparation)

(light stabilizers for polymers, manufacture of)

RN 131806-85-4 CAPLUS

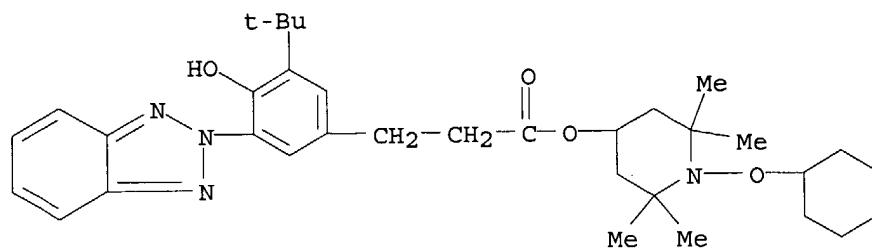
CN Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxy-, 1-methoxy-2,2,6,6-tetramethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)



RN 131806-86-5 CAPLUS

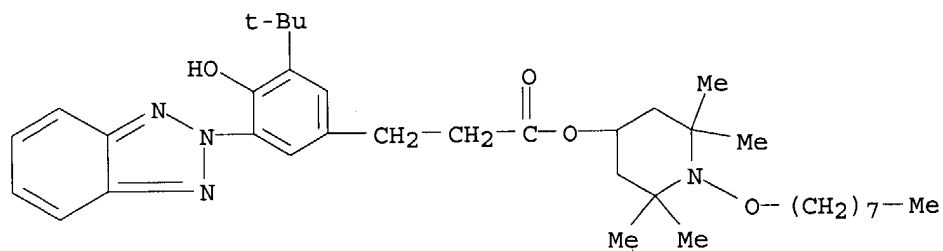
CN Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxy-, 1-(cyclohexyloxy)-2,2,6,6-tetramethyl-4-piperidinyl ester (9CI)

(CA INDEX NAME)



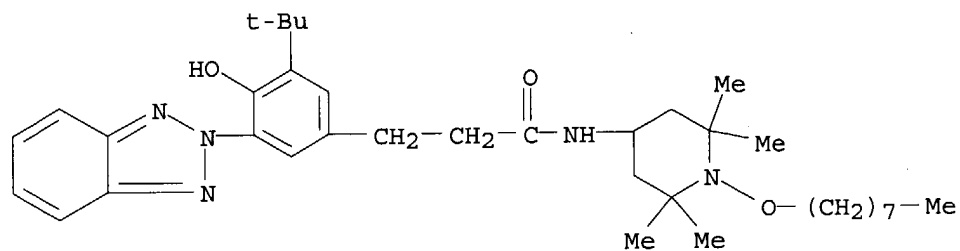
RN 131806-87-6 CAPLUS

CN Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxy-, 2,2,6,6-tetramethyl-1-(octyloxy)-4-piperidinyl ester (9CI) (CA INDEX NAME)



RN 131806-88-7 CAPLUS

CN Benzenepropanamide, 3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxy-N-[2,2,6,6-tetramethyl-1-(octyloxy)-4-piperidinyl]- (9CI) (CA INDEX NAME)



L12 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1981:141312 CAPLUS
 DOCUMENT NUMBER: 94:141312
 TITLE: Light stabilizers for coatings
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55112278	A2	19800829	JP 1980-17701	19800215
JP 02000389	B4	19900108		
US 4314933	A	19820209	US 1980-118253	19800204
EP 16723	A1	19801001	EP 1980-810049	19800211
EP 16723	B1	19830601		
EP 16723	B2	19870916		
R: BE, CH, DE, FR, GB, IT, NL				
CA 1148421	A1	19830621	CA 1980-345576	19800213
BR 8000935	A	19801029	BR 1980-935	19800214
			CH 1979-1484	19790215

PRIORITY APPLN. INFO.:

AB Substrates are coated with pigment-containing acrylic, alkyd, or polyester coatings with or without melamine-formaldehyde copolymer [9003-08-1], and top-coated with a similar composition without pigments containing 2,2,6,6-tetraalkylpiperidine derivs. and cured to form weathering-resistant coatings. Thus, an Al sheet was sealed, coated with a composition of Alftalat AC 451(alkyd resin) 51.56, Maprenal MF 590 20.7, TiO₂ 27.6, and C. I. Pigment Yellow 24 0.14 part in solvents to 30 μ , top-coated with a composition of Viacryl VC 1341 [76364-25-5] (acrylic polymer solution 60% solids) 62.5, Maprenal MF 825 17.6, Solvesso 100 19.4, flow modifier 0.5, and 1,2,2,6,6-pentamethyl-4-piperidinyl 3-[3-(2H-benzotriazol-2-yl)-4-hydroxy-5-methylphenyl]propionate (I) [76297-07-9] 1 part to 35-40 μ and baked 30 min at 130° to form a coating having color number change (yellow and blue) after 1200 h of outdoor exposure 9.5, gloss before and after 1200 h of outdoor exposure 98 and 90%, resp., and no change in appearance after 1200 h of outdoor exposure, compared with 16, 97, 16, and cracks and blisters, resp., for a similar coating without I.

IT 76297-07-9

RL: USES (Uses)

(light stabilizers, for acrylic and alkyd coatings)

RN 76297-07-9 CAPLUS

CN Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-4-hydroxy-5-methyl-,
 1,2,2,6,6-pentamethyl-4-piperidinyl ester (9CI) (CA INDEX NAME)

